

Applicant : Kuang-Lieh Lu et

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REMARKS

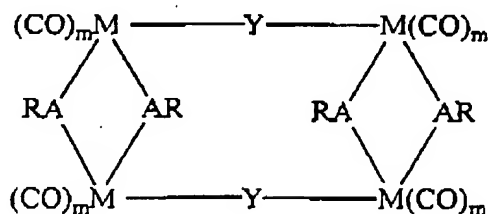
Applicants have corrected minor deficiencies in claims 1 and 13 and cancelled non-elected claims 17-21 without prejudice. No new matter has been introduced by the amendments.

Claims 1-16 are currently pending. Reconsideration of the application, as amended, is requested in view of the remarks below.

The Examiner concluded that claims 4, 10, and 12 are allowable if rewritten in independent form. See the Office Action, page 2, lines 20-22.

Claims 1-3, 5-9, 11, and 13-16, on the other hand, were rejected under 35 U.S.C. § 102(b) as being anticipated by Woessner et al., *Inorg. Chem.*, Vol. 37, No. 21, pp. 5406-5407 (1998) ("Woessner"). See the Office Action, page 2, lines 14-16. Applicants respectfully traverse the ground for rejection as follows:

Claim 1 is drawn to a rectangular supramolecule of the formula:



in which M is Re, Mn, Cr, Mo, W, Fe, Ru, or Os; Y is a nitrogen-based didentate ligand; A is O, S, Se, or Te; R is C<sub>3</sub>~C<sub>16</sub> alkyl, (CH<sub>2</sub>)<sub>n</sub>-aryl, or (CH<sub>2</sub>)<sub>n</sub>-aryl-(O-C<sub>1</sub>~C<sub>16</sub> alkyl)<sub>p</sub>; n is 0-15; p is 1-3; and m is 1-5. An example of Y is 4,4'-bipyridyl ("4,4'-bpy"). An example of AR is C<sub>3</sub>~C<sub>16</sub> alkoxy, i.e., A is O and R is C<sub>3</sub>~C<sub>16</sub> alkyl.

As correctly pointed out by the Examiner, Woessner discloses "the compound [Re<sub>2</sub>(CO)<sub>6</sub>(OCH<sub>3</sub>)<sub>2</sub>(4,4'-bpy)]<sub>2</sub> where the methoxy and 4,4'-bpy groups are bridged between the Re(CO)<sub>3</sub> moieties." See the Office Action, page 2, lines 16-17. In other words, Woessner discloses a molecular rectangle based on *fac*-Re(CO)<sub>3</sub> containing 4,4'-bpy group as one side and two methoxy groups as another side<sup>1</sup>. See page 5406, first paragraph. 4,4'-Bpy and methoxy groups correspond to Y and AR in the formula of claim 1, respectively. In the closest species of

<sup>1</sup> Molecular rectangle [Re<sub>2</sub>(CO)<sub>6</sub>(OCH<sub>3</sub>)<sub>2</sub>(4,4'-bpy)]<sub>2</sub> contains two 4,4'-bpy groups as two parallel sides of the rectangle (one on each side) and four methoxy groups as the other two parallel sides (two on each side).

claim 1, AR is C<sub>3</sub>~C<sub>16</sub> alkoxy, not a methoxy group as disclosed by Woessner. Thus, claim 1, as well as claims 2-3, 5-9, and 11 dependent from it, is clearly not anticipated by Woessner.

Claim 13, drawn to a method of making a rectangular supramolecule of claim 1, is not anticipated by Woessner for the same reasons set forth above. Neither are claims 14-16 dependent from it.

### CONCLUSION

Applicants submit that the ground for rejection asserted by the Examiner has been overcome, and that claims 1-16, as pending, define subject matter that is novel. On this basis, it is submitted that all claims are now in condition for allowance, an action of which is requested.